

# इंटरनेट

# मानक

## Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 11394 (1985): Pliers, Distal End Cutting, with Safety Hold, Dental [MHD 8: Dentistry]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE





Indian Standard

## SPECIFICATION FOR PLIERS, DISTAL END CUTTING, WITH SAFETY HOLD, DENTAL

**1. Scope** — Specifies material, dimensions and other requirements for distal end cutting pliers with safety hold used in dentistry.

**2. Material** — Stainless steel conforming to Designation 30Cr13 of IS : 6603-1972 'Specification for stainless steel bars and flats' for all the parts except tips.

**2.1 Tips** — Carbide tips of the range of application M10 according to IS : 2428-1964 'Application of carbides for machining, ranges of application and colour code'.

**3. Shape and Dimensions** — As shown in Fig. 1 and 2.

**3.1 Tolerances on various dimensions shall be as given below:**

- a)  $\pm 0.05$  mm on dimensions up to 2.0 mm,
- b)  $\pm 0.1$  mm on dimensions above 2.0 mm and up to 5.0 mm,
- c)  $\pm 0.2$  mm on dimensions above 5.0 mm and up to 20.0 mm,
- d)  $\pm 0.5$  mm on dimensions above 20.0 mm and up to 50.0 mm,
- e)  $\pm 1.0$  mm on dimensions above 50.0 mm and up to 100.0 mm, and
- f)  $\pm 2.0$  mm on dimensions above 100.0 mm.

### 4. Workmanship and Finish

**4.1** The two halves of the pliers shall move freely about the joint without any play and shall open fully. The jaws shall register accurately on closing the pliers.

**4.2** The tips shall be brazed to the jaws of the pliers.

**4.3** The surface of the pliers shall be finished smooth.

**4.4** All the edges except the cutting edge shall be rounded. The cutting edge shall be sharp and free from any cuts, nicks and other defects.

**4.4.1** The cutting edge shall be so designed as to hold the cut portion of the wire after use.

**4.5** The pliers shall be polished bright, except the outside surface of the handle, which may have matt finish, and passivated.

**5. Heat Treatment** — The pliers except the carbide tips shall be uniformly hardened and tempered to a hardness of 500 to 600 HV, when tested in accordance with IS : 1501-1968 'Method for Vickers hardness test for steel (first revision)'.

### 6. Tests

**6.1 Performance Test** — The pliers shall be tested by cutting an orthodontic stainless steel wire (hard-drawn, heat-treated) of diameter 0.5 mm. The wire shall be cut easily and neatly and the cut portion of the wire retained in the safety hold. The test shall be carried out 6 times at the same place on the cutting edge of the pliers. The pliers, particularly the cutting edge, shall not show any sign of damage after the test.

**6.2 Corrosion Resistance Test** — As specified in IS : 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'. The pliers shall not show any sign of corrosion after the test.

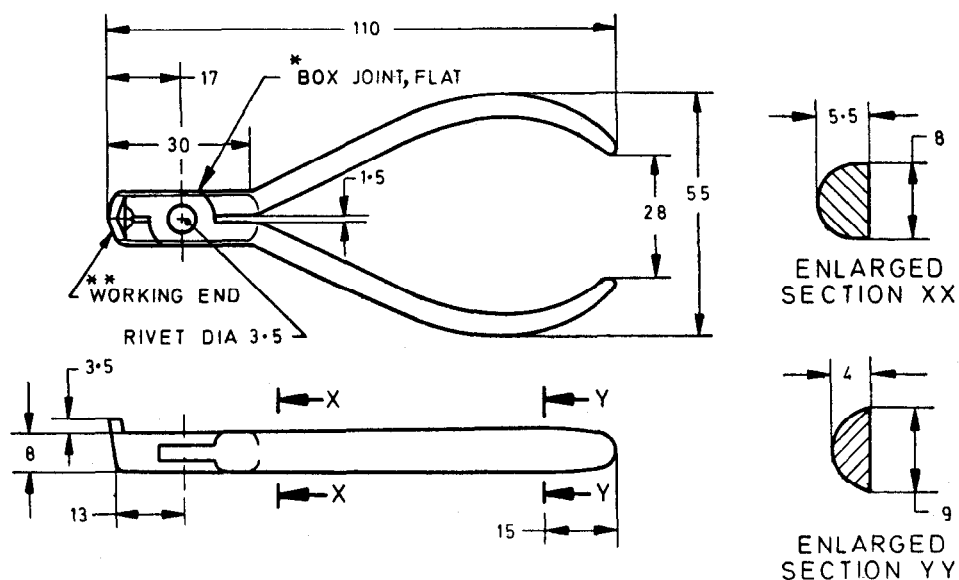
### 7. Marking and Packing

**7.1** The pliers shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade-mark; the words 'stainless steel'; and the country of manufacture.

Adopted 25 October 1985

© March 1986, ISI

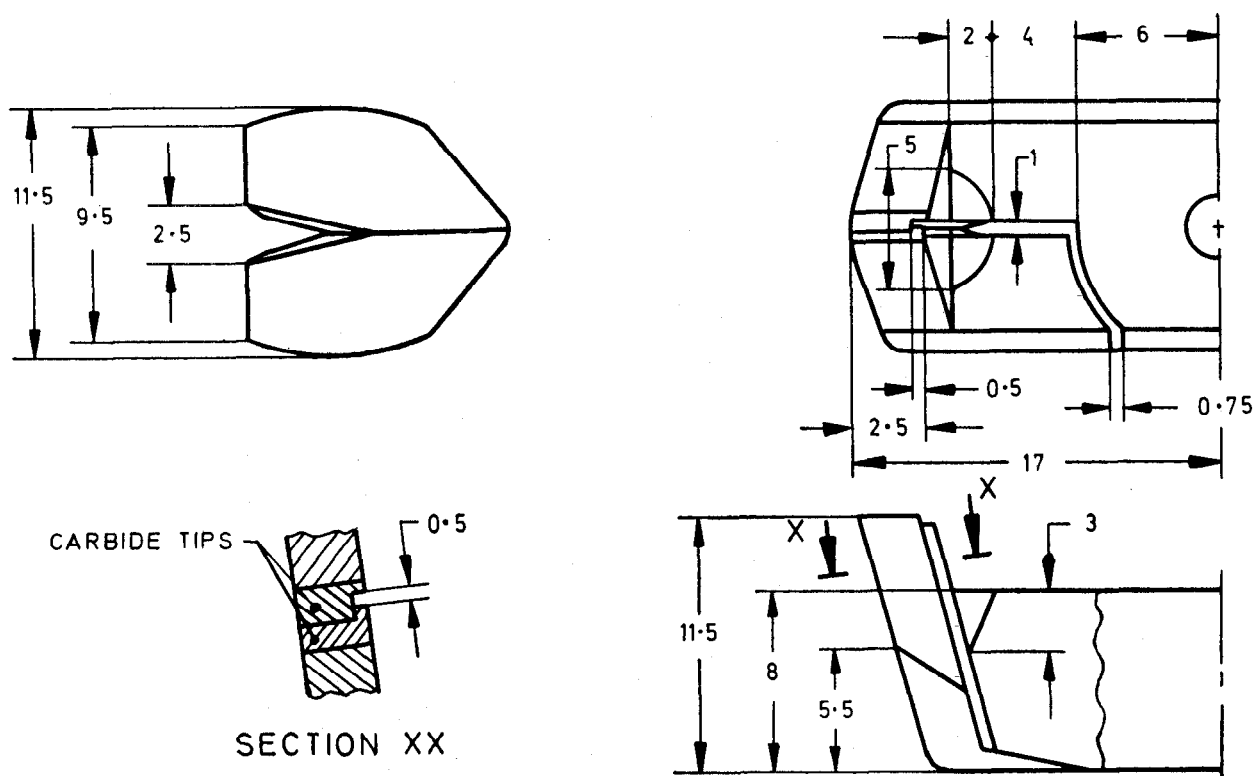
Gr 2



\*See IS : 3642-1978 'General requirements for surgical instruments (first revision)'.  
 \*\*See Fig. 2 for details.

All dimensions in millimetres.

FIG. 1 PLIERS, DISTAL END CUTTING, WITH SAFETY HOLD, DENTAL



All dimensions in millimetres.

FIG. 2 DETAILS OF WORKING END

**7.2** Each instrument shall be put in a polyethylene bag or wrapped in wax paper. The instruments shall then be packed as agreed to between the purchaser and the supplier.

**7.3** The packages shall be marked with the name of the instrument; the manufacturer's name, initials or recognized trade-mark; the words 'stainless steel'; and the country of manufacture.

**7.4. ISI Certification Marking** — Details available with the Indian Standards Institution.

**8. Sampling** — Sampling procedure and acceptance criterion for the pliers shall be as agreed to between the purchaser and the supplier. A recommended scheme for the same is given in Appendix A.

## APPENDIX A

( Clause 8 )

### SAMPLING SCHEME AND CRITERION FOR CONFORMITY FOR PLIERS, DISTAL END CUTTING, WITH SAFETY HOLD, DENTAL

**A-1. Lot** — In any consignment all the pliers produced from the same material under similar conditions shall constitute a lot.

**A-2.** The number of pliers to be selected from each lot shall depend upon the size of the lot and shall be in accordance with Table 1.

---

**TABLE 1 SCALE OF SAMPLING**

Lot Size	Sample Size
Up to 15	2
16 „ 50	3
51 „ 150	5
151 and above	8

---

**A-2.1** These pliers shall be selected from the lot at random and in order to ensure randomness of selection, procedures given in IS : 4905-1968 'Methods for random sampling may be followed'.

**A-3. Number of Tests and Criterion for Conformity** — All the pliers selected at random in accordance with Table 1 shall be tested for shape and dimensions, workmanship and finish, hardness, performance and corrosion resistance. The lot shall be considered as conforming to these requirements if none of the pliers in the sample is found to be defective in any of these tests.